CBIIT Speaker Series Page

Welcome to the CBIIT Speaker Series Wiki

The NCI Center for Biomedical Informatics and Information Technology (**CBIIT**) **Speaker Series** presents talks from innovators in the research and informatics community. The biweekly presentations allow thought leaders to share their work and discuss trends across a diverse set of domains and interests. The goals of the Speaker Series are: to share leading edge research; to inform the community of new tools, trends, and ideas; to inspire innovation; and to provide a forum from which new collaborations can begin.

Speakers represent many different institutions, and the topics they address are wide-ranging. View a list of all past speakers, and view their presentations on our NCI CBIIT Speaker Series YouTube playlist!

For help accessing NCI CBIIT Speaker Series files, go to Help Downloading Files.

Location: 9609 Medical Center Drive, Rockville, Maryland 20850

Speaker Series Guidelines for Speakers: Download Word document

Questions or suggestions? If you have questions or would like to recommend a speaker, please email Eve Shalley at eve.shalley@nih.gov

Please refer to the Speaker Calendar below for upcoming speakers.

CBIIT and NCIP Links

- CBIIT website
- NCIP landing page
- NCI Biomedical Informatics Blog
- NCIP on Twitter @NCI_NCIP

Notices

An invitation: If you are interested in presenting your work to our diverse audience of informaticists; basic, translational, and clinical researchers; software developers; and others interested in exploring the uses of informatics in cancer research, contact Eve Shalley at eve.shalley@nih.gov or 240-276-5194.

Upcoming Speakers:

January 18: Michael Liebman, IPQ Analytics, LLC

February 1: Tina Hernandez-Boussard, Stanford University

March 1: Joyce Niland, City of Hope Comprehensive Cancer Center & Samir Courdy, Huntsman Cancer Institute

March 15: Aviv Regev, MIT, Broad Institute

March 29: John Schnase, NASA

April 26: Wei Wang, University of California, Los Angeles (UCLA)

May 10: Vivek Navale, National Institutes of Health

May 24: Brad Erickson & Eliot Siegel

January 18, Michael Liebman, Critical Understanding for Translational and Precision Medicine

Warmington, Christina (NIH/NCI) [C] 11 29, 2016 .

SYNOPSIS:

Significant research efforts and resources are being directed towards the development of methodologies and data to support the Precision Medicine and the Cancer Moonshot Initiatives and to utilize these as the basis for translational medicine. Most of these focus on the development and implementation of technology that integrates genomics into clinical practice and/or the development of new diagnostics and therapeutics. The success of these efforts may be hindered by a lack of appreciation of the complexities present in real world clinical practice, e.g., quality and adherence to clinical guidelines, and real world patients, e.g., co-morbidities and poly-pharmacy. We have been developing and implementing system-based modeling approaches to facilitate the evaluation of these critical factors to enhance the goal of delivering the right care to the right patient.

The approach that we have developed, in collaboration with the Epidemiology and Health Research Department at the National Research Council of Italy (CNR-Pisa) involves the development of a Disease Process Model and its instantiation as an ontology implemented in a web-based platform. This disease-agnostic model has been successfully applied in drug and diagnostic development, clinical trial design (and evaluation), risk evaluation and clinical decision support applications. An additional critical component of this modeling approach incorporates the patient's underlying physiological development and the reality that risk, particularly to lifestyle and environmental factors, will vary throughout a patient's lifetime and stage of development. This presentation will address the gap between unmet clinical need and unstated, unmet clinical and provide examples from our work in breast cancer, pediatric Acute Respiratory Distress Syndrome (pARDS) and heart failure.

Session details...

Oct 26: Guoqin Yu, The Promise and Challenge of Human Microbiota Research

Warmington, Christina (NIH/NCI) [C] 9 28, 2016 .

SYNOPSIS:

Human-associated microbial communities (microbiota) play an essential role in immunity, health, and disease. Understanding human microbiota and its genomes (microbiome) will increase the possibility of various applications including personalized medicine and cancer immune therapy. Dr. Yu will talk about her research in microbiota, exposures, and lung cancer. She will also discuss the challenges of microbiota research.

Session details...

Sep 28: Funda Meric-Bernstam, Decision Support for Genomically Informed Therapy

Warmington, Christina (NIH/NCI) [C] 9 15, 2016 .

SYNOPSIS:

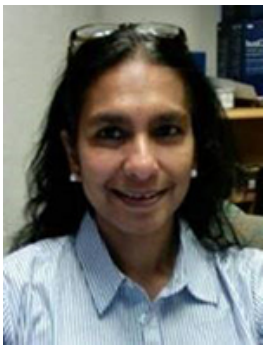
Genomic analysis of individual patients is now affordable and therapies targeted to specific molecular aberrations are being tested in clinical trials. However, even highly-specialized physicians at leading academic centers are not equipped to apply genomic information available in publicly available sources to clinical-decision-making concerning individual patients. Dr. Meric-Bernstam will describe informatics tools she and her team have developed to support personalized cancer treatment as "standard of care" rather than "one off" exceptions. These include: 1) a standardized approach for classification of variant actionability, 2) a database of therapeutic implications of common genomic aberrations using automated processing of publicly-available sources and 3) tools to summarize and present patient-specific annotations to

clinicians. Efforts to implement these tools at a large comprehensive cancer center and beyond as well as approach to provider education in genomics and decision support tools will be reviewed.

Session details...

July 6: Jayashree Kalpathy-Cramer, MedICI: A Platform for Image Computing Challenges

Warmington, Christina (NIH/NCI) [C] 6 27, 2016 .



SYNOPSIS:

Over the last couple of decades, “challenges” have been successfully employed to spur scientific research, “leverage ingenuity” and foster the translation of scientific advances into more widespread use. The topics for the challenges have covered a large spectrum of critical issues from self-driving cars and robots for “dangerous, degraded, human-engineered environments” to topics in energy, education and human health.

“Challenges” have also becoming increasingly important in the medical imaging research community. Such challenges have been an integral part of prestigious conferences such as MICCAI (Medical Image Computing and Computer Assisted Intervention) and International Symposium on Biomedical Imaging (ISBI) and are being planned at a number of other venues. The underlying rationale for these challenges is driven by the realization that every year we see the publication of numerous algorithms published in the scientific literature, yet a very small fraction are translated into clinical use. Challenges can be an effective means to comprehensively assess the performance of algorithms by comparing them on common, sufficiently large and diverse datasets using realistic tasks and valid evaluation metrics.

MedICI is an open-source project that is developing infrastructure and support to host medical imaging challenges across radiology, digital pathology, and genomics. We will describe the architecture of the system including the integration of CodaLab, caMicrosocope, and ePAD. We will walk through the process of hosting and participating in challenges from the perspective of the organizer and participant, describe past and on-going challenges and share successes as well as lessons learned.

Session details...

Complete List of Update Posts

Speaker Calendar